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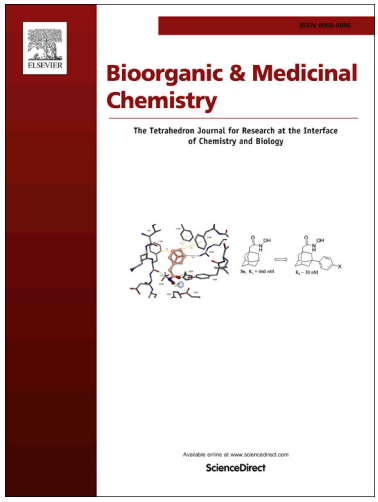

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ACCEPTED MANUSCRIPT

NO-donor thiacarbocyanines as multifunctional agents for Alzheimer's disease

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ABSTRACT

Some symmetrical and unsymmetrical thiacarbocyanines bearing NO-donor nitrooxy and furoxan moieties were synthesized and studied as candidate anti-Alzheimer's drugs. All products activated soluble guanylate cyclase (sGC) in a dose-dependent manner, depending on the presence in their structures of NO-donor groups. None displayed toxicity when tested at concentrations below 10 μM on human brain microvascular endothelial cells (hCMEC/D3). Some products were capable of inhibiting amyloid β-protein (Aβ) aggregation, with a potency in the low μM concentration range, and of inhibiting aggregation of human recombinant tau protein

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